REMARKS

Claims 1-17 are pending in the application. Claims 1-3 and 8-9 were rejected under 35 U.S.C. § 102(e), as described in paragraph 2 of the Office Action. Claim 7 was rejected under 35 U.S.C. § 102(e) as described in paragraph 3 of the Office Action. Claims 4-6 were rejected under 35 U.S.C. § 103 as described in paragraph 5 of the Office Action. Claim 7 was rejected under 35 U.S.C. § 103 as described in paragraph 6 of the Office Action. Claims 1, 7-10, 16 and 17 are the only independent claims.

The specification has been amended to place the application in better U.S. form. Attached hereto are Replacement Formal Drawings for Figs. 1, 2, 3(a) and 3(b). In particular, "VALAN" has been changed to --VLAN-- in Fig. 1 to correspond with the description in the specification. In Fig. 2, "FREM" and "FRAEM" have each been replaced with --FRAME--. Similarly, each instance of "FREM" and "FRAEM" in Figs. 3(a) and 3(b) have been replaced with --FRAME--.

The present invention is drawn to a communication system comprising a base station operable to communicate with a plurality of subscriber groups, wherein each subscriber group contains a plurality of subscriber stations. Each of the subscriber stations in a respective subscriber group is operable to wirelessly communicate with one another via the base station.

A problem with conventional subscriber wireless communication systems, for example as described in page 2, line 24 through page 3, line 8 of the present application, is that when broadcast data is to be transmitted to only a certain group of stations, the broadcast data is transmitted to all groups of stations causing needless increases in traffic. Further, if a plurality of different companies are accommodated in the same communication system, the secrecy of the broadcast data within a particular group of stations cannot be secured.

The present invention solves the problems associated with the conventional subscriber wireless communication systems discussed above. Specifically, in accordance with the present invention, some individual discrimination information of a subscriber station is transmitted from the subscriber station device to the base station apparatus, and the base station apparatus determines the group corresponding to the individual discrimination information for the destination and wirelessly

transmits the broadcast data to the subscriber station devices which belong to the same group as the determined group. Individual discrimination information of the subscriber station device is transmitted when the broadcast data is transmitted from the base station apparatus to the subscriber station device.

The above-discussed feature of the present invention is recited in the independent claims as discussed in more detail below.

Independent claim 1 recites, *inter alia*:

> when the base station apparatus receives broadcast data from a subscriber station device, **the base station apparatus designates** a subscriber station device belonging to the same group as that of a subscriber station device of a transmission source as a destination **to wirelessly transmit the broadcast data to the subscriber station device**.

Independent claim 7 recites, *inter alia*:

> the base station apparatus holds corresponding information between the logical channels and pieces of information for discriminating the subscriber station devices from each other and **corresponding information between pieces of group discrimination information of a plurality of subscriber station devices wirelessly connected to the base station apparatus** and pieces of individual discrimination information of the subscriber station devices and **sets destination information of data transmitted to a subscriber station device with reference to the pieces of corresponding information**.

Independent claim 8 recites, inter alia:

> the subscriber station device which wirelessly receives the broadcast data outputs the broadcast data to a communication terminal device controlled under the subscriber station device **only when the subscriber station device belongs to the group the destination of which is designated**.

Independent claim 9 recites, *inter alia*:

corresponding information between pieces **of group discrimination information of the subscriber station devices** held in the base station apparatus and pieces of individual discrimination information of the subscriber station devices is updated.

Independent claim 10 recites, *inter alia*:

wherein when said base station apparatus receives the first broadcast data **from one of said first plurality of subscriber station devices**, said base station apparatus wirelessly transmits the first broadcast data **to the other of said first plurality of subscriber station devices**, and

wherein when said base station apparatus receives the second broadcast data **from one of said second plurality of subscriber station devices**, said base station apparatus wirelessly transmits the second broadcast data **to the other of said second plurality of subscriber station devices**.

Independent claim 16 recites, *inter alia*:

wherein said base station apparatus is operable to hold second correspondence information related to a correspondence between said plurality of logical channels and discrimination information for discriminating a number of said plurality of subscriber station devices, and to **hold third correspondence information related to a correspondence between said plurality of subscriber station devices and individual discrimination information** for discrimination said plurality of subscriber station devices from one another, and

wherein said base station apparatus is operable **to set the destination information to a subscriber station with reference to said third correspondence information**.

Independent claim 17 recites, *inter alia*:

> outputting the broadcast data to a communication terminal device of a subscriber station device **only if the subscriber station device is one of the destination group of subscriber station devices**.

As compared with the conventional communication system, in the present invention, there is no problem if the subscriber station device does not save its respective group discrimination information because the base station in accordance with the present invention can recognize group communication to the same group's subscriber station devices. In the present invention, the base station apparatus saves group discrimination information thereby simplifying updating of the group discrimination information.

The prior art of record, either singly or in combination, fails to disclose or suggest the above-identified limitations.

In Jung, mobile stations must save their message ID corresponding to their group. Column 3, lines 26-34 of Jung specifically discloses that "the mobile station belonging to the CUG group 'A' saves message ID '01' onto the embedded storage device." Further, the cited portion of Jung discloses that the CBC/SMC transmits a message including the message ID corresponding to the destination group. Finally, column 3, lines 35-41 of the reference discloses that the mobile stations compare the message ID of the message received from the CBC/SMC with the saved message ID in their storage device.

In other words, in accordance with the system disclosed in Jung, each mobile station receives every broadcast message. However, a mobile station that is not intended to receive a particular message will not display the particular message, even though it has been received. Therefore, the system of Jung suffers from the same drawback as the convention subscriber wireless communication systems, for example as described in page 2, line 24 through page 3, line 8 of the present application.

On the contrary, in accordance with the present invention, the base station does not transmit every message to each mobile station, but rather the base station only transmits a particular message to the subscriber station devices that are intended to receive the particular message.

Accordingly, it is clear that Jung fails to disclose or suggest: that when the base station apparatus receives broadcast data from a subscriber station device, the base station apparatus designates a subscriber station device belonging to the same group as that of a subscriber station device of a transmission source as a destination to wirelessly transmit the broadcast data to the subscriber station device, as required in independent claim 1; a base station apparatus that sets destination information of data transmitted to a subscriber station device with reference to the pieces of corresponding information, as required in independent claim 7; a subscriber station device that outputs the broadcast data to a communication terminal device controlled under the subscriber station device only when the subscriber station device belongs to the group the destination of which is designated, as required in independent claim 8; that corresponding information between pieces of group discrimination information of the subscriber station devices held in the base station apparatus and pieces of individual discrimination information of the subscriber station devices is updated, as required in independent claim 9; that when the base station apparatus receives the first broadcast data from one of the first plurality of subscriber station devices, the base station apparatus wirelessly transmits the first broadcast data to the other of the first plurality of subscriber station devices, and that when the base station apparatus receives the second broadcast data from one of the second plurality of subscriber station devices, the base station apparatus wirelessly transmits the second broadcast data to the other of the second plurality of subscriber station devices, as required in independent claim 10; that the base station apparatus is operable to hold second correspondence information related to a correspondence between a plurality of logical channels and discrimination information for discriminating a number of the plurality of subscriber station devices, and to hold third correspondence information related to a correspondence between the plurality of subscriber station devices and individual discrimination information for discrimination the plurality of subscriber station devices from one another, and that the base station apparatus is operable to set the destination information to a subscriber station with reference to the third correspondence

information, as required in independent claim 16; or outputting the broadcast data to a communication terminal device of a subscriber station device only if the subscriber station device is one of the destination group of subscriber station devices, as required in independent claim 17.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed in a prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the foregoing, it is clear that Jung does not anticipate claims 1, 7-10, 16 or 17.

Furthermore, since claims 2-6 and 11-15 are dependent upon claims 1 and 10, respectively, and therefore include all the limitations thereof, Applicant submits that claims 2-6 and 11-15 additionally are not anticipated by Jung.

Furthermore, in light of the distinctions between the independent claims and the disclosure of Jung as discussed above, one of ordinary skill in the art at the time of the invention would not have been motivated to modify the disclosure of Jung to arrive at the independent claims of the present application. Therefore, claims 1-17 are patentable over Jung within the meaning of 35 U.S.C. § 103.

Paragraph 6 of the Office Action indicates that Gernert fails to discloses "pieces of group discrimination information."

In light of *Akzo*, it is submitted that claim 7 is novel over Gernert within the meaning of 35 U.S.C. § 102(b). Furthermore, in light of the distinctions between claim 7 and the disclosure of Gernert as discussed above, one of ordinary skill in the art at the time of the invention would not have been motivated to modify the teachings of Gernert to arrive at claim 7. Therefore, claim 7 is patentable over Gernert within the meaning of 35 U.S.C. § 103.

Furthermore, Gernert fails to disclose or suggest the shortcomings of Jung such that a combination of Jung in view of Gernert would disclose or suggest that which is recited in the independent claims.

Specifically, similar to Jung, Gernert fails to disclose or suggest: that when the base station apparatus receives broadcast data from a subscriber station device, the base station apparatus designates a subscriber station device belonging to the same group as that of a subscriber station device of a transmission source as a destination to wirelessly transmit the broadcast data to the subscriber station device, as required in independent claim 1; a base station apparatus that sets destination information of data transmitted to a subscriber station device with reference to the pieces of corresponding information, as required in independent claim 7; a subscriber station device that outputs the broadcast data to a communication terminal device controlled under the subscriber station device only when the subscriber station device belongs to the group the destination of which is designated, as required in independent claim 8; that corresponding information between pieces of group discrimination information of the subscriber station devices held in the base station apparatus and pieces of individual discrimination information of the subscriber station devices is updated, as required in independent claim 9; that when the base station apparatus receives the first broadcast data from one of the first plurality of subscriber station devices, the base station apparatus wirelessly transmits the first broadcast data to the other of the first plurality of subscriber station devices, and that when the base station apparatus receives the second broadcast data from one of the second plurality of subscriber station devices, the base station apparatus wirelessly transmits the second broadcast data to the other of the second plurality of subscriber station devices, as required in independent claim 10; that the base station apparatus is operable to hold second correspondence information related to a correspondence between a plurality of logical channels and discrimination information for discriminating a number of the plurality of subscriber station devices, and to hold third correspondence information related to a correspondence between the plurality of subscriber station devices and individual discrimination information for discrimination the plurality of subscriber station devices from one another, and that the base station apparatus is operable to set the destination information to a subscriber station with reference to the third correspondence information, as required in independent claim 16; or outputting the broadcast data to a communication terminal device of a subscriber station device only if the subscriber station device is one of the destination group of subscriber station devices, as required in independent claim 17.

Because both each of Jung and Gernert fails to disclose or suggest that which is recited in the independent claims, as discussed above, it is submitted that a combination of the Jung and Gernert additionally fails to disclose or suggest that which is recited in the independent claims. Accordingly, claims 1-17 are patentable over the combination of Jung in view of Gernert.

Having fully and completely responded to the Office Action, Applicant submits that all of the claims are now in condition for allowance, an indication of which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicant's attorney at the telephone number shown below.

Respectfully submitted,

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